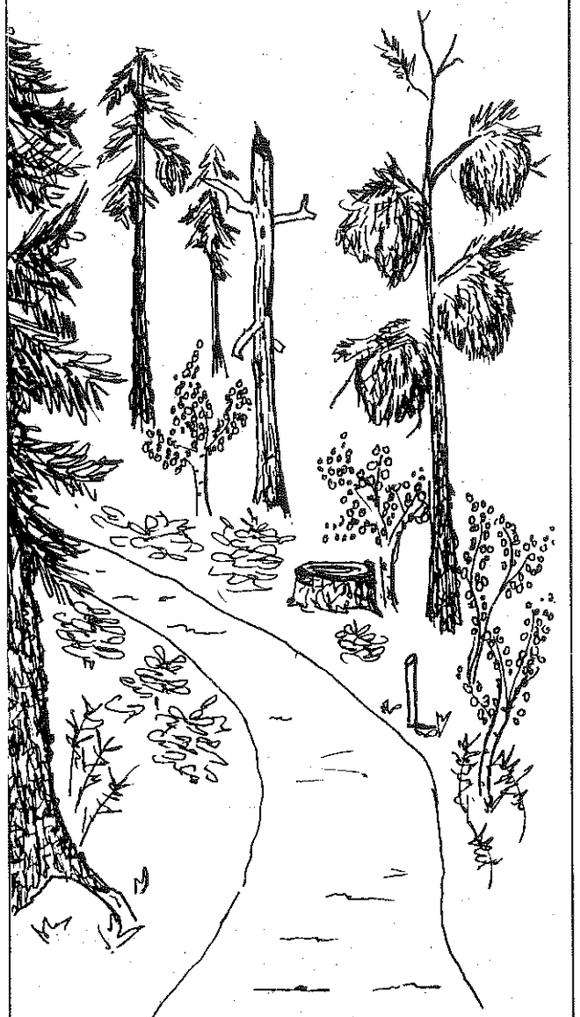
Mores Mountain Interpretive Trail

At Shafer Butte Recreation Area



Trail Distance about 1 mile

What do you remember?

1. What is a standing dead tree called?

2. Describe an edge.

3. What organisms help decay a log?

4. What is the green stuff growing on the tree trunks?

5. Why do aspen leaves shake?

6. What is unique about Douglas-fir cone ?

Answers: 1. snag; 2. where two plant communities join and overlap; 3. fungi, bacteria; 4. wolf lichen; 5. flat stems; 6. bracts between the cone scales.

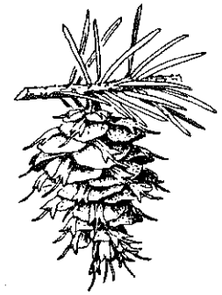
The Boise National Forest is pleased to provide this brochure to help improve the quality of your outdoor experience.

1 Fifteen Stories

In cities, many-storied buildings are often the tallest thing around. But here in the forest, trees tower over everything. These large trees are Douglas-fir. Starting with a seed smaller than the end of a pencil, these trees took sunlight, water and soil nutrients and made a meal to grow on!

Douglas-fir trees are the dominant plant in this forest but they interact with all the other organisms in the community. A ***"biotic community"*** is a group of plants and animals living in the same area and influencing one another. Continue on to find out how Douglas-fir trees influence, and are influenced by, the other members of this community.

Douglas-fir cones are easy to identify - look for the "forked tongue", or bract, that sticks out between the cone scales.



2 Not the Kissing Kind

Gaze out at the forest. Many of the large Douglas-fir trees are infected with dwarf mistletoe. This leafless parasitic plant cannot make its own food; it survives by sinking roots inside a tree to steal nutrients and water. Dwarf mistletoe can kill trees or other diseases and insects can finish off trees to weak to fight back. You won't see the plant, but you can see the signs of its presence: bushy branches, like pompoms, in the crown of a tree.

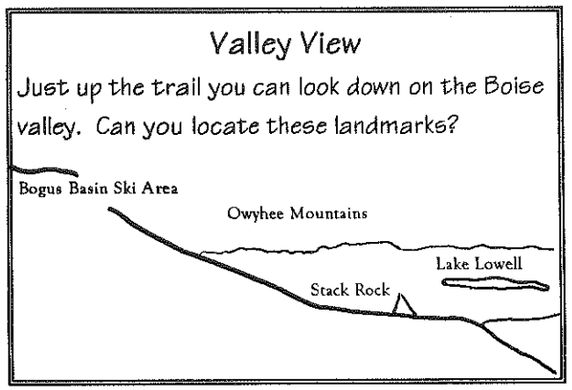
You may see stumps scattered throughout this area. About 25 years ago, trees killed by beetles were removed.

3 Life in the Arms of Death

Look just below the trail and see the large, dead Douglas-fir tree. Although no longer alive, the tree's trunk and branches still play a role in supporting the life of other forest residents like birds, beetles and squirrels.

Standing dead trees are called ***snags***. Critters seek out snags for nesting, resting, roosting, food and food storage, and shelter from weather. You'll see a lot more snags along the trail - look for signs of animals using them.

See any holes? Not all birds can make holes - woodpeckers and nuthatches can but small owls and mountain bluebirds cannot; they nest in abandoned holes.



4 Neon Natives

Have you noticed the bright green "hair" hanging on the bark of the Douglas-fir trees? This isn't moss, it's ***wolf lichen***. Lichen (like-un) is a combination of two completely different organisms: fungus and alga. It needs only light, water, and a few minerals from the air to grow. Wolf lichen doesn't hurt the tree, it just likes to grow on wood!

Without pulling any off the tree, run your hand over the green bristles. When wet, wolf lichen is soft, pliable and sponge-like; when dry, it's hard and brittle. This lichen spreads when pieces are carried off by wind, birds or animals.

Native Americans used wolf lichen to make a bright yellow dye and face paint.

5 Into the Great Wide Open

Openings in the forest give plants preferring sunny slopes to shady forests a chance to thrive. The storehouse of assorted "veggies" draws a wide range of insects, and in turn a greater variety of birds. Meadows are also burrowing grounds for chipmunks and gophers and hunting grounds for hungry hawks.

The edge between meadow and forest is sought by deer and elk: they feast in the meadow and seek shelter in the forest. An ***"edge"*** is where two different plant communities join. When adding up the plant and animal life found in each community, the sum (or ***edge effect***) is a rich variety of organisms.

6 Changing the Menu

When a snag falls to the ground, it supplies food to a different set of forest critters. Bacteria, fungi, and insects join forces to break down or ***decay*** the log. They are in turn food for birds, squirrels, and bears. Besides a meal, fallen logs serve as storage areas, temporary shelter from storms, or a place for mice to burrow. Logs eventually decay and become part of the soil, adding nutrients and holding moisture.

Fungi help soften and rot logs. Look for white or black strands of fungus woven into the wood; or thin, spongy, white fungus sheets on the surface. Some fungi cause wood to crumble into cubes. Do you see any evidence of fungus here?

7 Shady Competition

The forest here is denser and more shady.

These trees are 100 to 150 years old. For the last 25 years, it's been slow growing. All plants need sunlight, water and nutrients to grow; but what happens when there's not enough to go around? A silent and vicious competition! Some trees win enough requirements to grow. Other trees barely grow and weaken or die. Frail trees may fall victim to disease and insects - that's one way nature "weeds out" weak trees to make room for sturdier ones.

How do people simulate nature to weed out trees?

8 Bark Art

Peer closely at the surface of the log across the trail. Do you see tracks etched in the wood? These markings are left by ***bark beetles***. Adult beetles bore through the bark to lay eggs between the bark and wood. When the eggs hatch, hungry beetle larvae devour the soft inner bark creating more tunnels. After maturing, the beetles bore out through the bark to begin another life cycle. Patterns left by the larvae can be used to identify the type of bark beetle.

Some bark beetles kill living trees, others attack dead or dying trees, but most just live in the forest and do not affect trees.

9 Restless Leaves

Listen as the breeze shimmers through the round aspen leaves. Their flat stems keep them constantly moving to catch the slightest puff of air. Aspens invade meadows because they don't like shade. In open areas, including those caused by fires or logging, aspens become umbrellas for tree species that tolerate shade, like Douglas-fir. However, once the aspens are shadowed by the competition they die out, leaving the firs to replace them in the forest.

Aspens supply food for over 500 forest residents including deer, beaver, insects, and fungi. Their golden leaves are a symbol of autumn.

What do you remember from this walk?

Turn the page to test yourself.